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#### No. I.—APRIL 1860.

I.—On the Halticidæ of the Canary Islands. By T. Vernon Wollaston, M.A., F.L.S.

In the following paper I propose to enumerate such members of the Halticidee, amounting in all to eighteen well-defined species, which have been hitherto observed in the Canarian archipelago. Their detection is due to the combined researches of John Gray, Esq., and myself, in January and February of 1858 (whilst visiting the various islands in his yacht, the "Miranda," in which he afterwards sailed for the West Indies); and to those, subsequently, of myself alone during the five following months of the same year, as also during February, March, April and May of 1859. And since, therefore, the whole seven islands have been explored (indeed four of them twice over, and some very carefully), it is believed that the subjoined list will give a fair approximate idea of the entire Halticideous fauna of that sub-African Group. I have been mainly induced to undertake it through the instigation of my friend M. Allard, of Paris, who is preparing a Monograph of the European and North-African forms, and in which therefore the species of these Atlantic islands should be properly inserted.

Genus Haltica.

Geoffroy, Hist. Abr. des Ins. de Paris, i. 244 [script. Altica] (1762).

(Subgenus Crepidodera, Chevr.)

# 1. Haltica Allardii, n. sp.

H. ovata convexa subnitida subtus nigra, capite prothoraceque rufo-testaceis, illius fronte fere impunctata, hoc brevi profunde et dense puncton. 1.

tato, postice in medio leviter transversim impresso, marginibus ipsis plus minus angustissime nigrescentibus; elytris testaceis, sutura fasciaque brevi transversa media communi (extus utrinque plus minus fracta, vel etiam subito abbreviata) nigris, profunde punctato-striatis, interstitiis pilis cinereis demissis longitudinaliter obsitis; antennis pedibusque pallido-testaceis, illarum apice femoribusque posticis vix obscurioribus.

Long. corp. lin. 7-1.

Mas, tarsorum anteriorum articulo basilari leviter dilatato.

Variat (in utroque sexu) elytris omnino immaculatis.

Habitat in foliis Physalidis aristatæ in ins. Teneriffa, circa Portum Orotavæ, tempore vernali A.D. 1858 a meipso copiose reperta. Species valde distincta, et in honorem entomologici periti necnon Halticarum investigatori oculatissimi Dom. E. Allard, Parisiis, dicata.

The present interesting little Haltica is closely allied, in affinity and general facies, to the European H. atropæ, of which I possess specimens communicated to me by M. Allard. It is, however, a trifle smaller than that insect, and its head and prothorax are pale rufotestaceous, instead of black; its limbs also are paler, its punctuation (although coarse) not quite so rugose, and the dark portions of its elytra are very much narrower and less developed. I captured it abundantly throughout the whole district immediately above the Puerto de la Orotava, in the north of Teneriffe, during February and March of 1858,—where it was entirely confined to the Physalis aristata (a plant intimately allied to the Atropa Belladonna, being of the same natural family, and, as I am informed by the Rev. R. T. Lowe, possessing nearly the same chemical properties), on the leaves of which shrub it subsists. I have much pleasure in dedicating it to M. Allard, to whose kindness I am indebted for an accurate comparison of my Canarian Halticidæ with his large collection of European and North-African types.

(Subgenus Aphthona, Chevr.)

2. Haltica Paivana, n. sp.

H. ovato-oblonga nitida profunde dense et rugose punctata læte metallica, modo cyanea, modo viridi-cyanea, modo æneo-cuprea, prothorace transverso-subquadrato, ad latera marginato subrotundato, angulis ipsis posticis leviter prominulis acutiusculis, antennarum basi pedibusque rufotestaceis, antennis versus apicem, femoribus anterioribus ad basin, femoribus posticis omnino tarsorumque apicibus plus minus nigrescen-

Long. corp. lin.  $1-1\frac{1}{2}$ .

Mas vix minor, oculis magis prominulis tarsorumque anteriorum articulo basilari paulo dilatato.

Variat (æneo-cuprea) pedibus in utroque sexu omnino pallidis.

Habitat in foliis Euphorbiarum (præsertim E. piscatoriæ et Regis Jubæ) in ins. Lanzarota, Canaria, Teneriffa et Hierro, valde gregaria. Viro illustrissimo Baronis ei lusitanicè "Castello de Paiva" dicato hanc Halticam formosam certe novam, ob gratias mihi amicissime oblatas, tribui.

A metallic species of very variable colour, shading off from bright cyaneous-blue into golden-green, and almost, at times, into copperybrown. It is attached to the foliage of the various large Euphorbias, and was taken on the *E. Regis Jubæ* by Mr. Gray and myself on the cliffs above the Salinas, in the north of Lanzarote, during January 1858 (in which same locality I captured it again, abundantly, in March of the following year); as also, by myself, on the mountains above San Martao, in Grand Canary; on the *E. piscatoria* above the Puerto de la Orotava, of Teneriffe; and in the district of El Golfo, in the west of Hierro. I have dedicated it to my learned and excellent friend the Barão do Castello de Paiva, to whose researches, especially in Madeira and Portugal, I have been frequently indebted for many additions to my collection.

#### 3. Haltica crassipes, n. sp.

H. cylindrico-ovata nitida subhyalina testacea, capite paulo rufescentiore, prothorace transverso-subquadrato angulis ipsis posticis leviter prominulis acutiusculis, elytris paulo pallidioribus leviter subtilissime punctulatis, antennarum articulis 4 basalibus rufo-testaceis, reliquis paulatim nigrescentibus, pedibus plus minus rufo-, femoribus anterioribus pallido-testaceis.

Long. corp. lin.  $2\frac{1}{3}$ – $2\frac{2}{3}$ .

Mas, antennis vix longioribus robustioribus; tarsis anterioribus articulo basilari valde dilatato [secundo latiore].

Habitat in foliis plantarum ad rupes locorum editiorum crescentium, præsertim Sempervivi, in ins. Teneriffa et Palma, rarior.

At first sight the present insect and the following one are somewhat alike; nevertheless, apart from the *generic* characters (of the longer legs and hind feet, &c.) of *Longitarsus*, the *H. crassipes* may be known by its more quadrate prothorax, stouter antennæ (which have four of their basal joints, instead of only three, more or less testaceous), and by its more finely punctured elytra. Its four anterior male tarsi have their basal joint greatly dilated, so as far to exceed the second,—a structure which is more or less expressed in most of the *Halticidæ*, but which in the *H. crassipes* is peculiarly conspicuous. I am informed by M. Allard, of Paris, that it is un-

questionably new, though slightly akin to his Aphthona flaviceps,—which, however, is smaller, with its prothorax and antennæ shorter, and the feet of its males less expanded, &c. It is apparently rare; nevertheless I have taken it sparingly at the Agua Mansa, in Teneriffe; and from off plants (I think chiefly Semperviva) growing on the damp rocks in the deep sylvan ravines of Palma,—especially the Barranco da Agua, towards the north-east of the island.

#### Genus Longitarsus.

Latreille, Fam. Nat. des Ins. 405 [script. Longitarse] (1825).

#### 4. Longitarsus Kleiniiperda, n. sp.

L. oblongo-ovatus subnitidus pallido-testaceus, capite vix rufescentiore, prothorace antice angustiore angulis posticis obtusis, elytris sat profunde punctatis, antennarum articulis tribus basalibus testaceis, reliquis plus minus subito nigris, pedibus fere concoloribus (femoribus posticis vix obscurioribus).

Long. corp. lin. 21-23.

Mas, tarsis anterioribus articulo basilari valde elongato dilatato [secundo latiore].

Habitat in plantis Kleiniæ neriifoliæ, DC., gregatim, folia destruens, in ins. Teneriffa, Palma et Hierro.

The prima facie distinctions (apart from generic ones) between the present insect and the last one have been already pointed out. It is much allied, at first sight, to the common L. tabidus of more northern latitudes; nevertheless it is less convex and more strongly punctured than that species, its prothorax is less abbreviated and rather more narrowed in front, its antennæ and legs are longer, and the basal joint of the four front male feet is altogether larger and broader. Its habits, too, are quite different, since it appears to be almost entirely attached to the leaves of the Kleinia neriifolia, on which it often exists by thousands, and whole plants of which I have occasionally observed almost defoliated by its attacks. In such positions I have taken it abundantly in the waste grounds above the Puerto of Orotava, and near Santa Cruz, as also in the sylvan districts of the Agua Garcia and Taganana, of Teneriffe; in the Barranco above Santa Cruz, of Palma; and towards the coast, in El Golfo, of Hierro.

# 5. Longitarsus persimilis, n. sp.

L. oblongo-ovatus angustulus subnitidus læte maculatus; capite nigropiceo, fronte rufescentiore; prothorace rufo-testaceo sublunulato (angulis posticis rotundatis) minute sed distincte punctulato, ad latera in medio subangulato; elytris dense subrugose et sat profunde punctatis, distincte (præsertim versus latera) longitudinaliter striatis, testaceis, sutura et maculis duabus (una sc. parva humerali, et altera majore subrotundata centrali) in singulo positis ornatis; antennis basi rufo-testaceis, apicem versus nigrescentibus; pedibus testaceis, femoribus posticis apice nigris.

Long. corp. lin.  $1\frac{1}{4} - 1\frac{1}{2}$ .

Mas, tarsorum anteriorum articulo basilari sat dilatato.

Habitat in foliis Echiorum (præsertim E. simplicis) in locis editioribus Teneriffæ et Hierro.

Before examining critically this beautiful Longitarsus, I had regarded it as a mere topographical state of the Madeiran L. Masoni (the L. Isoplexidis, Ins. Mad. 443, tab. 9. f. 4); for, being attached principally to a gigantic Echium closely related to the E. candicans on which that insect subsists, being exposed, apparently, to much the same external conditions as its ally, and ornamented with almost the same colouring, I did not imagine it probable that the small prima facie differences which it presented would be anything more than such as we might reasonably look for, as the result of local influences, in the same species inhabiting islands so separated from each other as Madeira and Teneriffe. Nevertheless, on a nearer inspection, the L. persimilis possesses such a number of minor characters peculiarly its own, that I cannot feel justified, despite the many points of resemblance in the two insects, in regarding them as otherwise than truly distinct, though clearly members of the same geographical province. The Canarian species may be readily known from the Madeiran one by its uniformly smaller size, rather shorter and more lunulate prothorax (which is a little more truncated in front, and has the hinder angles more rounded-off, and the sides somewhat more angulated in the middle), and by its entire sculpture. which is denser and very much more coarse, especially on the elytra (which are also more evidently striated than is the case in the L. Masoni). Its elytra also are slightly more truncated at their apex, its whole surface much less opake, and its coloration is altogether a little different,—its head being less black, or more piceous, its prothorax more evidently rufo-testaceous, its legs and elytra not quite so pale, and the dark portions of the latter smaller in size; i.e. the humeral and discal patches are, both of them, reduced in dimensions, and the sutural line is equal throughout, being scarcely (if at all) expanded posteriorly, whereas in the L. Masoni it is regularly hastate or spear-shaped. Its limbs, moreover, are shorter and less robust. It seems almost confined to the foliage of a large

Echium (which the Rev. R. T. Lowe informs me is probably the E. simplex), much resembling, in general growth and aspect, the Madeiran E. candicans, on which I have taken it abundantly at the foot of the Organo rocks in the sylvan region above the Agua Mansa, of Teneriffe, nearly 5000 feet above the sea. It does occasionally, however, occur on other and smaller plants of the same genus, on one of which (I believe the E. violaceum) I captured it, during February of 1849, on the hills to the west of Valverde, in the island of Hierro.

## 6. Longitarsus Messerschmidtiæ, n. sp.

L. præcedenti valde affinis, sed vix minor et gracilior, sculptura subtiliore et colore paulo pallidiore elytris fere vel omnino immaculatis.

Long. corp. lin. 1—vix  $1\frac{1}{2}$ .

Variat (rarior) elytris plaga parva centrali in singulo posita (necnon interdum etiam altera minore obsoletissima suffusa ad humeros) ornatis. Habitat in foliis Messerschmidtiæ fruticosæ in ins. Teneriffa et Hierro, hinc inde vulgaris.

It is not without some little hesitation that I regard the present Longitarsus as distinct from the preceding one; nevertheless, since its normal facies is very dissimilar, and its habits different, I think it is scarcely safe to amalgamate the two. Indeed, in its general aspect it is so unlike the L. persimilis, that no one could ever suppose them to be identical, did not an occasional (though very rare) variety of the present insect make such a curious approach, in the arrangement of its colouring, to its ally, as to lead one to suspect that it may be but a phasis of the latter, gradually assumed through the adoption of a totally different plant for its subsistence. Still this is but conjecture, and I therefore prefer treating the two as separate. In its typical state, the L. Messerschmidtiæ is, on the average, a trifle smaller and narrower than its ally, its sculpture is less deep, and it is of a uniformly pale, brownish-testaceous hue. Its elytra, however (in which case the apex of its posterior femora are also dark), have an occasional tendency to become clouded about their disk, suture, and shoulders; and in one or two highly coloured specimens (out of many hundreds which I possess) the discal cloud assumes the form of a small well-defined patch (and even the humeral one is somewhat concentrated),—thus causing them to resemble very much the paler examples of the L. persimilis. Such individuals, however, are extremely scarce; and even in them the lighter sculpture prevails (as in the ordinary ones); and therefore, in spite of their prima facie approach to the last species, I must regard their connectiveness as more apparent than real. So far as I have hitherto observed, the

present Longitarsus is exclusively attached to the fragrant Messer-schmidtia fruticosa,—on which shrub, when carefully examined, I have scarcely ever failed to detect it. Its range is consequently somewhat lower than that of the L. persimilis, which feeds on the Echia of more lofty elevations. I have taken it abundantly in the waste grounds above the Puerto of Orotava, as well as between Yeod de los Vinhos and Garachico, of Teneriffe; on rocks between the plains of los Llanos and the Pinal, in the Banda, of Palma; and a little above the sea-coast, in the district of El Golfo, to the west of Hierro.

#### 7. Longitarsus ochroleucus, Mshm.

Chrysomela ochroleuca, Mshm., Ent. Brit. 202 (1802). Haltica ochroleuca, Gyll., Ins. Suec. iv. App. 658 (1827). Thyamis ochroleuca, Steph., Ill. Brit. Ent. iv. 311 (1831). Altica ochroleuca, Lucas, Col. de l'Algérie, 547 (1849).

Habitat in insulis Canaria et Teneriffa, rarior.

The common European *L. ochroleucus* appears to be somewhat scarce, or at any rate extremely local, in the Canaries, and may perhaps have been introduced into the islands. I have taken it sparingly near Santa Cruz in Teneriffe; and, more abundantly, in Grand Canary, where, during April 1858, it was rather plentiful on the mountain-slopes above San Martao, on the ascent to the Roca del Soucilho.

## 8. Longitarsus cognatus, n. sp.

L. subovatus convexus nitidus testaceus, capito ferrugineo; prothorace brevi transverso angulis posticis subrectis, vix punctulato; elytris minute et lævissime punctulatis; antennis gracilibus, ad basin pedibusque anterioribus pallido-testaceis; femoribus posticis (præsertim versus apicem) nigro-piceis, tibiis posticis piceo-testaceis.

Long. corp. lin.  $1\frac{1}{3}$ .

Mas adhuc latet (sp. fæmineum solum vidi).

Habitat in ins. Fuerteventura, prope Puerto de Cabras a Dom. Gray Januario exeunte A.D. 1858 repertus.

The single specimen, from which I have drawn out the above description, was detected by John Gray, Esq., near Port Cabras, in the island of Fuerteventura, during our sojourn there, in his yacht, at the end of January 1858. It is a good deal allied, at first sight, to the common European *L. tabidus*, but is smaller and of a more pallid hue, and with its hind femora dark. Its antennæ also are slenderer; its prothorax shorter, more truncated in front, and less margined at the edges; and its punctuation is altogether very much finer.

# 9. Longitarsus brevipennis, n. sp.

L. oblongo-ovatus nitidus, capite rufo-piceo; prothorace rufo-testaceo angulis posticis obtusis, sat distincte punctulato; elytris brevibus testaceis, sutura præsertim in medio nigrescente, vix densius punctulatis; antennis brevibus, ad basin, pedibus anterioribus tarsisque posticis testaceis, versus apicem femoribusque posticis piceo-testaceis.

Long. corp. lin.  $1\frac{1}{3}$ .

Mas adhuc latet (femineum tantum possedi).

Habitat in ins. Lanzarota, ad plantam Heliophyti erosi, Lemann, per litus arenosum crescentem prope oppidum Arrecife, mense Aprili A.D. 1859, a meipso captus.

Like the last species, the present one has been also described from a unique example. It was captured, by myself, from off a plant of the *Heliophytum erosum*, Lemann, on the sands behind the sea-beach to the south of Arrecife, in the island of Lanzarote, during April 1859. There were three more specimens in company with it, but I unfortunately failed in securing them. It is apparently akin to the *L. atricapillus*, Dufts., of more northern latitudes; and M. Allard, of Paris, to whom I lately submitted it for inspection, returned it with the observation: "affinis *Teinodactylæ atricapillæ*, Dufts., sed aliter colorata, capite et prothorace latioribus, antennis brevioribus, et cæt."

### 10. Longitarsus nubigena, Woll.

Longitarsus nubigena, Woll., Ins. Mad. 447 (1854).
——————————, Woll., Cat. Mad. Col. 133 (1857).

Habitat in ins. Gomera: specimen unicum prope oppidum San Sebastian, Februario ineunte A.D. 1858 deprehensit Dom. Gray.

A single specimen of the Madeiran *L. nubigena* was captured by John Gray, Esq., near San Sebastian, in Gomera, during our visit to that island at the beginning of February 1858. It is a trifle larger than any of the few examples which I have hitherto taken in Madeira; but in all other particulars (such as colour, outline, sculpture, &c.) it agrees with them precisely.

# 11. Longitarsus dorsalis, Fab.

Chrysomela dorsalis, Fab., Mant. Ins. i. 77 (1787). Thyamis dorsalis, Steph., Ill. Brit. Ent. iv. 315 (1831). Allica dorsalis, Lucas, Col. de l'Algérie, 548 (1849).

Habitat Lanzarotam borealem, in graminosis circa oppidum Haria, tempore vernali haud infrequens.

The European L. dorsalis is tolerably common in the north of Lanzarote, where it was taken by Mr. Gray and myself, in grassy

places around Haria (especially, I think, from off the *Mercurialis annua*, L.), during January of 1858; and I subsequently captured it in the same locality during March of the following year. But it is the only region in which I have hitherto observed it throughout the Canarian group.

#### 12. Longitarsus inconspicuus, n. sp.

L. elliptico-ovatus convexus nitidus minutissime subalutaceus, capite dilute piceo, prothorace angustulo longiusculo piceo crebre et sat distincte punctulato, elytris dilute testaceis sutura picescenti, minus crebre et profundius punctatis; antennis fusco-piceis, ad basin pedibusque anterioribus testaceis, pedibus posticis paulo obscurioribus.

Long. corp. lin. vix  $\frac{7}{8}$ .

Habitat locos editiores Teneriffe, in montibus supra "Agua Mansa" Maio ineunte, A.D. 1859, a meipso captus.

The single specimen described above was captured by myself, at the beginning of May 1859, in Teneriffe, on the mountain-slopes midway between the Agua Mansa and the Cumbre, more than 5000 feet above the sea. It very much resembles the European *L. thoracicus*, Steph., of which it may perhaps be but a geographical state; nevertheless, since M. Allard, to whom I lately transmitted it for inspection, believes it to be distinct therefrom, I have treated it accordingly. It seems to differ principally from that species in its smaller size and larger punctuation.

### 13. Longitarsus fusco-ceneus, Redt.

Longitarsus fusco-æneus, Redt., Fna Austr. 535 (1849).

Habitat in foliis Echii violacei, L., in ins. Fuerteventura et Teneriffa rarior, plerumque una cum L. Echii degens.

The *L. fusco-æneus* was first detected in the Canary Islands by Mr. Gray, who took three specimens of it near Puerto de Cabras in Fuerteventura; and it was subsequently captured by myself in Teneriffe,—both on the mountains above S<sup>ta</sup> Cruz and at the Agua Garcia. It occurs principally on the leaves of the *Echium violaceum*, L., and, for the most part, in company with the *L. Echii*.

## 14. Longitarsus Echii, Illig.

Haltica Echii, Illig., Mag. für Insekt. vi. 171 (1807).
— tibialis, Dufts., Fna Austr. iii. 258 (1825).
Altica Echii, Lucas, Col. de l'Algérie, 547 (1849).
Longitarsus excurvus, Woll., Cat. Mad. Col. 133 (1857).

Habitat plantas Echii violacei, L., in ins. Teneriffa, Gomera et Palma crescentes, folia destrucus.

Not an uncommon insect on the Echium violaceum, L., in Teneriffe,

where I have taken it abundantly around the wood at the Agua Garcia; and it was captured by Mr. Gray in the valley of San Sebastian in Gomera, and near S<sup>ta</sup> Cruz in Palma. It is identical with the species which I described, from the Madeiran Group, in 1857, under the name of *L. excurvus*, from specimens detected in Porto Santa by Mr. Bewicke.

#### Genus Psylliodes.

Latreille, Fam. Nat. des Ins. 405 [script. Psylliode] (1825).

15. Psylliodes hospes, Woll.

Habitat insulas Canarienses, præsertim in locis inferioribus frequens.

The *P. hospes* abounds at low and intermediate elevations throughout the Canarian Group, on the whole seven islands of which I have taken it in greater or less profusion; and it was also captured in Lanzarote, Gomera, and Hierro by Mr. Gray. In the Madeiras also, though less common, it is nearly (if not quite) universal, having been observed by myself in Madeira proper, in Porto Santo, and on the Dezerta Grande; so that it may be properly regarded as an Atlantic species. It is the representative of the *P. cuprea* of more northern latitudes; and M. Allard, to whose examination I have lately submitted it, returned it with the remark: "*Psyll. cupreæ*, Ill., affinis, et ut illa in elytris punctato-striata, sed differt interstitiis punctulatis, prothorace ad latera minus recto, et cæt."

16. Psylliodes vehemens, Woll.

Psylliodes vehemens, Woll., Ins. Mad. 451 (1854).
—————, Woll., Cat. Mad. Col. 134 (1857).

Habitat insulas Canarienses, tempore vernali et æstivo, ubique vulgaris.

Like the last species, the present one abounds throughout the Canarian archipelago, Gomera being the only island on which I have not hitherto captured it; nevertheless there can be no doubt that it exists there, no less than on the others,—our short visit to that island happening to be during the depth of winter, when the *Halticida* are not plentiful. It was taken also by Mr. Gray in Fuerteventura and Palma. It is equally common likewise in the neighbouring group, where I have observed it, in profusion, at nearly all elevations in Madeira proper, as well as in Porto Santo and on the Dezerta Grande.

### 17. Psylliodes stolida, n. sp.

P. breviter elliptica convexa ænescenti- (rarius subviridescenti-) picea, capite deflexo, prothorace alutaceo minute et leviter punctato; elytris plus minus picescentioribus profunde punctato-striatis, interstitiis subtilissime seriatim punctulatis (punctulis vix observandis), antennis basi pedibusque dilute testaceis, femoribus posticis picescentioribus.

Long. corp. lin. 1.

Habitat in ins. Lanzarota et Fuerteventura, quasdam herbas præsertim Mercurialis annuæ, L., destruens.

The small, convex, æneo-piceous Psylliodes described above, the head of which is much deflexed, and the prothorax (in addition to its shallow punctures) minutely alutaceous, is tolerably abundant in certain parts of Lanzarote and Fuerteventura,—in the former of which islands it was taken both by Mr. Gray and myself, on the common Mercurialis annua, in the vicinity of Haria, during January 1858; and in the latter, by myself, at Oliva, towards the end of March of the following year.

#### Genus Chatocnema.

Stephens, Ill. Brit. Ent. iv. 325 (1831).

#### 18. Chætocnema tarsalis, n. sp.

C. subovata nitida, vel ænea vel viridescenti-ænea, capite prothoraceque dense et profunde punctatis, elytris profundius et rugose punctatis; antennarum articulis intermediis gracilibus, basalibus, tibiis tarsisque dilute testaceis; femoribus (presertim posticis) picescentioribus; tarsis gracilibus longiusculis, articulo ultimo gracillimo elongato.

Long. corp. lin. 1.

*Habitat* ins. Canariæ, in graminosis ad Argeniguin, per marginem paludis ejus juxta mare sitæ, a meipso mense Aprili reperta.

The general aspect of the present *Chætocnema* is almost the same as that of the common European *C. aridella*, except that it is a little more æneous and shining, that the prothorax is somewhat more truncated (or less produced behind), and that the intermediate joints of the antennæ are rather slenderer; and it was not until closely overhauling it that I detected a *structural* character which at once separated it from its more northern ally. This consists in the formation of the tarsi, which are very much narrower and more elongated than those of the *C. aridella*, with their *apical* joint especially (as compared with the corresponding one in that species) long and slender. The penultimate one also is less dilated than is the case in that insect, and the whole foot has a different appearance. It was detected by myself, on the 14th of April, 1858, at Argeniguin, in the south

of Grand Canary, where I obtained several specimens by brushing the grass at the edges of the small marsh immediately behind the sea-coast.

II.—Remarks on the Pollinosity of the Genera Lixus and Larinus.

By Henri Jekel, Member of the Entomological Society of France,
&c. &c.

The following paper, the manuscript of which was delivered to Mr. White, of the British Museum, in January 1859, together with certain remarks on two species of Larinus, for Mr. Daniel Hanbury, to accompany his note on the products of these two species\*, has not (from a misunderstanding on my part?) been added to that note, but was returned to me a few weeks ago by Mr. White. I had understood Mr. Hanbury desired me, besides determining the two species, to give a general account of the authors who had treated on the habits of that genus; hence the few remarks which I now beg for acceptance in this Journal, hoping they will not be devoid of interest.

With respect to the tomentosity and pollinose transudation of Lixus and Larinus, I think it will not be out of place to mention here a fact until now overlooked, so far as I know. It appears to me, from long observation of the covering adorning many Curculionideous Beetles, that Nature acts, in clothing them, by layers or coatings. There is, immediately above the derm of the elytra and thorax, a thin tomentose squamosity, either more or less piliform and opake, or very fine, silky, and bright. This ground-layer, common to many other tomentose Coleoptera, is comparatively persistent, though far more easily rubbed off than setiform or hairy pilosity, and is analogous to the squamosity of species having one layer only. This tomentosity is not produced by exudation, but grows according to the general law, is susceptible of partial or total baldness, as in merely squamose insects, and if rubbed off, when the insect is alive, would be restored in course of time only. Then comes the second layer, much less persistent (even in non-pollinose species†), which in the above two genera, as in many others, is a real pollinose transudation, susceptible of a relatively immediate renewal when rubbed off the living insect. Of this upper layer I need not remark, after the conscientious observations of M. Godart, the highly interesting contro-

<sup>\* &</sup>quot;Note on two Insect-products from Persia," in Journ. Proceed. Linn. Soc. iii. p. 178 (1859).

<sup>†</sup> See my analogous observations in 'Fabricia Entomologica,' i. 154.